

**AMENDMENTS TO THE CLAIMS:**

Please amend claim 1, as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application:

**Claim 1 (currently amended):** A liquid crystal display device comprising:

a liquid crystal panel having a plurality of scanning lines and a plurality of signal lines;

a standard voltage generating circuit providing a plurality of standard voltages;

a vertical driver that scans the scanning lines of said liquid crystal panel one after another;

a horizontal driver that receives the plurality of standard voltages provided from said standard voltage generating circuit and ~~supply~~ supplies said standard voltages to said liquid crystal panel according to gradation voltage data to the signal lines of said liquid crystal panel; and

a control circuit that creates said gradation data by inverting a polarity of input data for each horizontal synchronization cycle and controls the horizontal drivers so as to apply standard voltage corresponding to said gradation data to the liquid crystal panel;

wherein a gradation- $\gamma$  correction voltage relation used by said control circuit for gradation display is symmetrical with respect to a point in a center between a top gradation step and a bottom gradation step.

**Claim 2 (original):** The liquid crystal display device according to claim 1, wherein said gradation- $\gamma$  correction voltage relation is represented with a straight line and said

**HAYES SOLOWAY P.C.**  
130 W. CUSHING STREET  
TUCSON, AZ 85701  
TEL. 520.882.7623  
FAX. 520.882.7643

175 CANAL STREET  
MANCHESTER, NH 03101  
TEL. 603.668.1400  
FAX. 603.668.8567

horizontal drivers apply  $\gamma$  correction voltage to said liquid crystal panel in response to the input gradation data to meet the relation.

**Claim 3 (original):** The liquid crystal display device according to claim 1, wherein said gradation-  $\gamma$  correction voltage relation is represented with a non-straight line and said horizontal drivers apply  $\gamma$  correction voltage to said liquid crystal panel in response to the input gradation data to meet the relation.

**Claim 4 (original):** The liquid crystal display device according to claim 3, wherein said non-straight line is a curved line or a polygonal line.

**Claim 5 (original):** The liquid crystal display device according to claim 1, wherein said input data is digital data and said control circuit creates polarity-inverted gradation data by inverting each bit in said digital data.

**Claim 6 (original):** The liquid crystal display device according to claim 1, wherein said standard voltage generating circuit has a ladder resistance and said gradation-  $\gamma$  correction voltage relation is determined by setting the resistance values of said ladder resistance.

**Claim 7 (original):** A driving method of a liquid crystal display device comprising the steps of:

supplying a plurality of standard voltages to a horizontal driver of a liquid crystal panel;

and

scanning said liquid crystal panel with a vertical driver by inverting a polarity of input data for each line for displaying gradation;

wherein a gradation-  $\gamma$  correction voltage relation used in displaying gradation is

symmetrical with respect to a point in a center between a top gradation step and a bottom gradation step.

**Claim 8 (original):** The driving method of a liquid crystal display device according to claim 7, wherein said gradation-  $\gamma$  correction voltage relation is represented with a straight line and said horizontal drivers apply  $\gamma$  correction voltage to said liquid crystal panel in response to the input gradation data to meet the relation.

**Claim 9 (original):** The driving method of a liquid crystal display device according to claim 7, wherein said gradation-  $\gamma$  correction voltage relation is represented with a non-straight line and said horizontal drivers apply  $\gamma$  correction voltage to said liquid crystal panel in response to the input gradation data to meet the relation.

**Claim 10 (original):** The driving method of a liquid crystal display device according to claim 9, wherein said non-straight line is a curved line or a polygonal line.